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FEDERAL COMMUNICATIONS COMMISSION  
OFFICE OF THE SECRETARY

August 2, 1999

Ms. Magalie R. Salas  
Secretary  
Federal Communications Commission  
445 Twelfth Street, S.W.  
Washington, DC 20554

**Ex Parte: GTE Response to Outside Plant Structure and Cable Costs Data Request -  
CC Docket Nos. 96-45 and 97-160**

Dear Ms. Salas:

The accompanying information is provided in response to requests from the staff of the Accounting Policy Division of the Common Carrier Bureau regarding GTE's voluntary submission of certain outside plant and cable cost data on January 19, 1999.

Pursuant to Section 1.1206(a)(1) of the Commission's rules, and original and one copy of this letter are being submitted to the Office of the Secretary. Please associate this notification with the record in the proceeding indicated above.

Please call me at (202) 463-5293 if there are any questions concerning this filing.

Sincerely,

W. Scott Randolph  
Director - Regulatory Matters

Attachment

cc: Richard Kwiatkowski - 5-A460

# FCC Structure and Cable Cost Survey

## Follow-Up

GTE SERVICE CORPORATION

JULY 30, 1999

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From: Richard Kwiatkowski <RKWIATKO@fcc.gov>  
To: "Randolph, W. Scott" <SRandolph@dcoffice.gte.com>  
Subject: Re: FCC's Structure and Cable Cost Survey  
Date: Thu, 10 Jun 1999 16:42:34 -0400  
MIME-Version: 1.0  
X-Mailer: Internet Mail Service (5.5.1960.3)  
Content-Type: text/plain

Scott,

I have set out below the request for information that we discussed at our meeting with GTE on Tuesday.

1. Please show the complete cable cost development (from construction contracts to the data tables submitted in response to the FCC's survey) for the reported cost for one 24-gauge 50-pair buried copper cable cost and one 24-strand underground fiber cable cost. Please submit the pages from the underlying construction contracts showing the values reflected in these reported costs. Please show all calculations and data used to determine these reported costs. Please select the costs for which you submit this information from among wire centers with the following CLLI codes:

BRAROKXB, BVTNORXB, CRLBNMXA, DSKNCAXF, CRWDFLXA, ERIEPAXM, GVRSNVXF

2. Please show the complete structure cost development (from construction contracts to the data tables submitted in response to the FCC's survey) for one reported buried structure cost and one reported underground structure cost (i.e., conduit cost). Please submit the pages from the underlying construction contracts showing the values reflected in these reported costs. Please show all calculations and data used to determine these reported costs. Please select the costs for which you submit this information from among wire centers with the following CLLI codes:

BORNTXXA, BRAROKXA, BVTNORXB, CRLBNMXA, CRTNTTXD, CRWDFLXA, GVRSNVXF

Thank you for trying to provide us with this information.

Dick Kwiatkowski  
FCC

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**Process Flow for  
Underground and Buried Structure Cost  
And  
Copper and Fiber Cable Cost  
Follow Up**

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**I. Introduction**

The information being provided is in response to the Federal Communication Commission (FCC) "Outside Plant Structure and Cable Costs Data Collection" request per 7/6/99 e-mail (a forwarded copy of the e-mail has been included in the "Overview" section in a tab entitled "FCC Request"). As requested in the e-mail, data has been submitted to provide investment costs associated with "Underground Cable Structure Cost", "Buried Cable Structure Cost", "Copper Cable Cost for a 50 pair, 24 gauge cable", and "Fiber Cable Cost for a 24 strand fiber".

**II. General Description**

The offices (CLLI codes) for which data have been submitted were based on the CLLI codes listed for 7/6/99 e-mail. The e-mail specified one set of CLLI codes to be used for the copper and fiber cable costs and another set to be utilized for the underground and buried structure costs. However, if underground and buried structure data existed in the copper and fiber cable CLLI codes or copper and fiber cable data existed in the underground and buried structure CLLI codes, the data was not excluded in order to ensure a larger distribution of work orders.

The submitted data was based on the work order activity for the CLLI codes listed on the 7/6/99 e-mail. The work order selection criteria was based on material placement in the years 1998 and 1999.

The costs were compiled utilizing only capital ('2') accounts to capture only initial placement of material and not the rearrangement, repair, or retirement of material. Therefore, all accounts other than those beginning with '2' were excluded for the expenditures used to develop the unit costs.

**III. Binder Layout**

GTE's costs and the associated supporting documentation for each of the requested structure and cable costs have been included as part of this binder. Each of the major sections of the binder has a colored tab labeled with the section title. The subsections under the major sections have white sub-tabs labeled with the subsection title. If there are further subdivisions with the subsections, they will be separated by sheets of colored paper.

The major sections of the binder are "Overview", "Structure and Cable Costs", "Material and Labor Work Order Summary", "Contractor Placing and Splicing Labor", "Material Units", "Work Order Reports", and "Data Interdependencies". Each of these major sections will be addressed in greater detail in sections VII through XIII of this document.

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**IV. Caveats**

While conceding this caveat was included in the original "Structure and Cable Cost Survey" submission and while not wanting to belabor the point, this follow up submission also illustrates the same situation regarding underground support costs. GTE feels that overall underground structure costs have been significantly understated in this exercise due to existing capacity in underground support systems, i.e., cables placed during this time period utilized pre-existing underground structures. No work orders in this follow up submission include the placement of pullboxes or full size manholes.

**V. Data Source**

The Work Order Journal System (WOJS) subsystem of the Capital Program Management System (CPMS) was the primary data source for developing the responses to this follow up request. WOJS is the official work order journal (guide file) that stores actual charges associated with work orders and maintains both open and closed work order detail files for reporting purposes. WOJS is used by other GTE financial systems such as GTEAMS (Purchasing/Supply) and RDM (Time Reporting) to validate actual charges. WOJS in conjunction with the Capital Program Management System (CPMS) is used to monitor actual versus budgeted dollars. Material dollars are stored in WOJS by work order, account, and cost element code (CEC). Labor dollars are stored in WOJS by work order, account, cost element code, and labor group.

The "raw" WOJS financial data used to support the material costs has been included on the floppy disk with a file name of "FCC\_MINT.xls" or in a more summarized format under the file name "FCCMSUM.xls".

The "raw" WOJS financial data used to support the labor costs has been included on the floppy disk with a file name of "FCC\_LINT.xls" or in a more summarized format under the file name "FCCLSUM.xls".

The Contractor Administration System (CAS) is utilized by GTE to request and track installation contracts. CAS contains the contract rates for each contractor by state and code (i.e., P43A - Place Copper Cable in Conduit). The CAS reports will display the work order, contractor, code, actual units, and invoiced dollars. The unit cost for each vendor and code can then be derived.

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**VI. Support Data Import Instructions**

The data sources used to develop the costs are contained on the floppy disk that has been included as an attachment to this document. The data sources are contained in self-extracting files entitled "FCC\_DATA.exe". Copy these files to the desired directory and then initiate the file extraction by the selecting the file from Windows Explorer (or File Manager) or by executing the file from a DOS prompt.

The files included on the floppy disk are the following:

- FCC\_RPT2.doc -- This document. Provides overview of data contained on tables one through four
- FCC\_LINT.xls -- Contains the "raw" labor financial data from the Work Order Journal System (WOJS).
- FCC\_MINT.xls -- Contains the "raw" material financial data from the Work Order Journal System.
- FCCLSUM.xls -- Contains a summarized version of the data contained in FCC\_LINT.xls
- FCCMSUM.xls -- Contains a summarized version of the data contained in FCC\_MINT.xls
- FCC\_T1.xls -- Contains Underground Structure unit costs. This data is developed from data contained in FCCLSUM.xls and FCCMSUM.xls.
- FCC\_T2.xls -- Contains Buried Structure unit costs. This data is developed from data contained in FCCLSUM.xls and FCCMSUM.xls.
- FCC\_T3.xls -- Contains the 50 pair, 24 gauge buried Copper Cable costs. This data is developed from data contained in FCCLSUM.xls and FCCMSUM.xls.
- FCC\_T4.xls -- Contains the 24 strand underground Fiber costs. This data is developed from data contained in FCCLSUM.xls and FCCMSUM.xls.
- FCC\_MATL.xls -- Contains Work Order Material Units report.

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**VII. Overview Section of Binder**

**A. Process Flow Document**

The process flow document is this document. It is intended to provide the reader with an overview of the process used to compile the data and develop the costs. It also provides a roadmap and additional information on each of the major sections of the binder.

**B. FCC Request**

The FCC request is a forwarded copy of the electronic mail message containing the structure and cable cost request.

**VIII. Structure and Cable Costs Section of Binder**

The "Structure and Cable Costs" section of the binder contains the unit cost of underground structure, buried structure, copper cable (for 50 pair/24 gauge cable), fiber cable (for 24 strand fiber cable) as requested in the 7/6/99 e-mail.

**A. Underground Structure Cost Overview**

This subsection contains the unit cost for underground structure broken out by work order. This subsection also provides a detailed description of the methodology used to develop the underground structure unit costs.

**B. Buried Structure Cost Overview**

This subsection contains the unit cost for buried structure broken out by work order. This subsection also provides a detailed description of the methodology used to develop the buried structure unit costs.

**C. Copper Cable Cost Overview**

This subsection contains the unit cost for copper cable (50 pair/24 gauge) broken out by work order. This subsection also provides a detailed description of the methodology used to develop the copper cable unit costs.

**D. Fiber Cable Cost Overview**

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This subsection contains the unit cost for fiber cable (24 strand) broken out by work order. This subsection also provides a detailed description of the methodology used to develop the fiber cable unit costs

**IX. Material and Labor Work Order Summary Section of Binder**

The "Material and Labor Work Order Summary" section of the binder provides a summarized version of the work order labor and material used to develop the unit costs of underground structure, buried structure, copper cable, fiber cable. As stated in section II, the data that was utilized to compile the unit costs includes only the capital '2' accounts. While the request stated a specific pair size, gauge, and number of fiber strands, the labor and material work order summary includes all the work order data and not just the data specifically stated on the request.

**A. Labor Work Order Summary**

The "Labor Work Order Summary" is a summarized version of the work order labor. It displays the CLLI, the Company, Plant, Work Order, Account, Engineering Units ("Eng Units"), Contractor Engineering Units ("Cntr Eng Units"), Placing Units, Contractor Placing Units ("Cntr Place Units"), Splicing Units ("Splice Units"), Contractor Splicing Units ("Cntr Splice Units"), and Other Units.

The CLLI code is the Common Language Location Identifier specified for the exchange. It matches one of the CLLI codes on the request.

The Company and Plant equate to CLLI code. Many of GTE's systems utilize a combination of company code and plant to identify an exchange. As a result all the work order face sheet and open work order detail reports under the Work Order binder tab will only display the company and plant.

The Work Order is an internally generated identifier created by CPMS/WOJS system when requested by a Planner or Engineer. The identifier is unique by company and plant. As a result, the same work order may appear to be utilized in different company and plants (i.e., CLLI codes). In reality, since the work order is unique by company and plant, the work order number identifier is the same, but it's not the same work order.

The first four positions of the Account match the USOA account structure. The fifth and sixth positions provide additional detail. The account "241110" is used for poles. The account "244110" is used for conduit systems (i.e., conduit, manholes, pullboxes). An account beginning with "2421" is used for aerial cable. An account beginning with "2422" is used for underground cable. An account beginning with "2423" is used for buried cable. For aerial ("2421"), underground ("2422"), and buried ("2423") account, if the fifth and sixth position is "10", the cable is metallic. If the fifth and sixth position is "20", the cable is fiber.

The labor units and dollars are derived from the work order through a combination of labor group and cost element code (CEC). The labor group and CEC are visible on the

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open work order detail reports under the work order reports tab or in the "raw" labor ("WO\_LINT.xls") and material ("WO\_MINT.xls") files.

The Engineering Units and Dollar fields contain the units and expenditures associated with GTE planning and engineering labor. If the labor group field is populated with either "011" or "021" and the CEC does not begin with "3", the units and dollars will be summed to the Engineering Units and Dollar fields.

The Contractor Engineering Units and Dollar fields contain the units and expenditures associated with Contractor planning and engineering labor. If the CEC is "30G", "30H", or "30J", the units and dollars will be summed to the Engineering Units and Dollar fields.

The Placing Units and Dollar fields contain the units and expenditures associated with GTE placing labor. If the labor group field is populated with "111" and the CEC does not begin with "3", the units and dollars will be summed to the Placing Units and Dollar fields.

The Contractor Placing Units and Dollar fields contain the units and expenditures associated with Contractor placing labor. If the CEC is "30A", "30B", or "30C", the units and dollars will be summed to the Placing Units and Dollar fields.

The Splicing Units and Dollar fields contain the units and expenditures associated with GTE splicing labor. If the labor group field is populated with "121" and the CEC does not begin with "3", the units and dollars will be summed to the Splicing Units and Dollar fields.

The Contractor Splicing Units and Dollar fields contain the units and expenditures associated with Contractor planning and engineering labor. If the CEC is "30K", "30L", or "30M", the units and dollars will be summed to the Splicing Units and Dollar fields.

The Other Units and Dollar fields contain the units and expenditures associated with all labor expenditure in which the labor group or CEC did not match a labor group or CEC associated with engineering, placing, or splicing.

**B. Material Work Order Summary**

The "Material Work Order Summary" is a summarized version of the work order material. It displays the CLLI, the Company, Plant, Work Order, Account, Material Category ("Matl Category"), Major Material Units ("Major Matl Units"), Contractor Units ("Cntr Units"), Major Material Dollars ("Major Matl Dol"), Minor Material Dollars ("Minor Matl Dol"), Shipping and Handling Dol ("Ship & Handling Dol"), Contractor Dollars ("Cntr Dol"), Pair Size, and Gauge.

The CLLI code is the Common Language Location Identifier specified for the exchange. It matches one of the CLLI codes on the request.

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The Company and Plant equate to CLLI code. Many of GTE's systems utilize a combination of company code and plant to identify an exchange. As a result all the work order face sheet and open work order detail reports under the Work Order binder tab will only display the company and plant.

The Work Order is an internally generated identifier created by CPMS/WOJS system when requested by a Planner or Engineer. The identifier is unique by company and plant. As a result, the same work order may appear to be utilized in different company and plants (i.e., CLLI codes). In reality, since the work order is unique by company and plant, the work order number identifier is the same, but it's not the same work order.

The first four positions of the Account match the USOA account structure. The fifth and sixth positions provide additional detail. The account "241110" is used for poles. The account "244110" is used for conduit systems (i.e., conduit, manholes, pullboxes). An account beginning with "2421" is used for aerial cable. An account beginning with "2422" is used for underground cable. An account beginning with "2423" is used for buried cable. For aerial ("2421"), underground ("2422"), and buried ("2423") account, if the fifth and sixth position is "10", the cable is metallic. If the fifth and sixth position is "20", the cable is fiber.

The Material Category is a high level identifier assigned based on the attributes of the material code. The material code is visible on the Open Work Order Detail report under the work order reports tab or in the "raw" material ("WO\_MINT.xls") file. If an expenditure could not be directly tied to a material code, it was not included in the expenditures used to develop the unit costs and the investment would not be included in the work order material summary.

The material units and dollars are derived from the work order through a combination of material code and cost element code (CEC). The material code and CEC are visible on the Open Work Order Detail report under the work order reports tab or in the "raw" material ("WO\_MINT.xls") files.

The Major Material Units and Dollar fields contain the units and expenditures associated with major material items. If the material code is populated and the CEC is "20A" or "201", the units and dollars will be summed to the Major Material Units and Dollar fields.

The Minor Material Dollar field contains the expenditures associated with minor material. If the material code is populated and the CEC is "211", "212", "21A", or "21B", the dollars will be summed to the Minor Material Dollar field.

The Shipping and Handling Dollar field contains the expenditures associated with shipping and handling. If the material code is populated and the CEC is "191", "271", "272", "27A", or "27B", "27C", "651", "681", or "691", the dollars will be summed to the Shipping and Handling Dollar field.

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The Contractor Material Units and Dollar fields contain the units and expenditures associated with contractor supplied material items. If the material code is populated and the CEC is "31A", the units and dollars will be summed to the Contractor Material Units and Dollar fields.

The Pair Size and Gauge fields are assigned based on the attributes of the material code.

**X. Contractor Placing and Splicing Labor Section of Binder**

The "Contractor Placing and Splicing Labor" section of the binder provides splicing and contracting expenditures by work order, the contracts for placing and splicing labor, and a listing of the work order contract records.

**A. CAS Report**

The "CAS Contractor Units" is a report from the Contractor Administration System (CAS) that displays the contractor code ("vendor code"), paid units, paid dollars, and unit cost by work order and by year. It displays the Company Code, Plant ("Location Code"), Work Order ("Work Ord. Number"), Unit Code, Paid Units, Paid Dollars, and Unit Cost.

The Company and Plant equate to CLLI code. Many of GTE's systems utilize a combination of company code and plant to identify an exchange. As a result all the work order face sheet and open work order detail reports under the Work Order binder tab will only display the company and plant.

The Work Order is an internally generated identifier created by CPMS/WOJS system when requested by a Planner or Engineer. The identifier is unique by company and plant. As a result, the same work order may appear to be utilized in different company and plants (i.e., CLLI codes). In reality, since the work order is unique by company and plant, the work order number identifier is the same, but it's not the same work order.

The last four positions of the Unit Code equate to the code that appears on the contracts in the unit code that appears on the Contractor contracts under the Contracts tab (i.e., P55A). The first position defines the account. A first position of "2" equates to a "2" or capital account. A first position of "6" equates to a "6" or expense account. A first position of "X" indicates an "X" or retirement account. While the development of the unit cost was based on capital ("2") accounts, the expense and retirement unit codes were retained for information purposes only.

The second position relates to what account the unit code applies to: 'A' for Aerial, 'B' for Buried Metallic, 'C' for Conduit, 'F' for Underground Fiber, 'Q' for Buried Metallic Filled, 'U' for Underground Metallic.

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The third position of the unit code defines the type of unit activity: 'D' is for drafting associated with engineering, 'E' is for equipment, 'L' is for hourly labor, 'N' is for engineering, 'P' is for placing, and 'S' is for splicing.

If the third through sixth position is numeric, the units and dollars represent lump sum bids and not a unit driven cost.

The Contractor ("vendor code") identifies the specific vendor from which the unit was purchased and to which the dollars were paid. In order to minimize GTE's exposure, the contractor names were replaced with generic names (i.e., "Florida Contractor 1"). This is the only alteration that was made. Other than that, the unit cost on the CAS Report equals the actual unit cost and the unit cost on the contract represents the actual contract unit rate.

The paid units and dollars equate to the actual units purchased and actual dollars expended.

The unit cost is the ratio between the dollars and units. This unit cost should match the unit cost displayed on the contract. If, in some rare instances, the unit cost does not match exactly, the most probable explanation is that the contractor or contract code is new to a particular zone and a national average is utilized until specific unit costs for that zone and contractor can be input.

**B. Placing and Splicing Contracts**

The "Placing and Splicing Contracts" contains information from the splicing and labor contracts. The contract information was paired down to display only the contractors, zones, and years that apply to the work orders being analyzed. It displays the Unit Code, Unit Code Description, and Unit Cost by Contractor.

The Unit Code and Description defines the unit of work defined on the contracts and to which a unit cost is assigned. The first position of the unit code defines the type of unit activity: 'D' is for drafting associated with engineering, 'E' is for equipment, 'L' is for hourly labor, 'N' is for engineering, 'P' is for placing, and 'S' is for splicing. The Unit Code equates to the last four positions of the Unit Code fields that appears on the CAS Reports under the CAS Reports tab.

The Unit Cost is established by contractor and zone. The cost should match the unit cost being displayed on the CAS Report.

The Contractor identifies the specific vendor from which the unit has been purchased and to which the dollars are to be paid. In order to minimize GTE's exposure, the contractor names were replaced with generic names (i.e., "Florida Contractor 1"). This is the only alteration that was made. Other than that, the unit cost represents the actual contract unit rate.

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**C. Work Order Placing and Splicing Costs**

The "Work Order Placing and Splicing Costs" contains the work order placing and splicing information. It displays the CLLI, Company, Plant, Work Order, Account, Labor Category, Contractor Code ("CNTR Code"), Year, Month, Units, Dollars, and Unit Cost.

The CLLI code is the Common Language Location Identifier specified for the exchange. It matches one of the CLLI codes on the request.

The Company and Plant equate to CLLI code. Many of GTE's systems utilize a combination of company code and plant to identify an exchange. As a result all the work order face sheet and open work order detail reports under the Work Order binder tab will only display the company and plant.

The Work Order is an internally generated identifier created by CPMS/WOJS system when requested by a Planner or Engineer. The identifier is unique by company and plant. As a result, the same work order may appear to be utilized in different company and plants (i.e., CLLI codes). In reality, since the work order is unique by company and plant, the work order number identifier is the same, but it's not the same work order.

The first four positions of the Account match the USOA account structure. The fifth and sixth positions provide additional detail. The account "241110" is used for poles. The account "244110" is used for conduit systems (i.e., conduit, manholes, pullboxes). An account beginning with "2421" is used for aerial cable. An account beginning with "2422" is used for underground cable. An account beginning with "2423" is used for buried cable. For aerial ("2421"), underground ("2422"), and buried ("2423") account, if the fifth and sixth position is "10", the cable is metallic. If the fifth and sixth position is "20", the cable is fiber.

The Labor Category, Contractor Code, Year, Month, Units, and Dollars are based on the cost element code (CEC). If a work order labor record had a CEC value of "30A", "30B", or "30C", the labor category will be set as contractor placing and the contractor code, year, month, units and dollars associated with that record will be displayed. If a work order labor record had a CEC value of "30K", "30L", or "30M", the labor category will be set as contractor splicing and the contractor code, year, month, units and dollars associated with that record will be displayed.

The unit cost is the ratio between the actual dollars and units. Due to the fact that the CPMS/WOJS work order expenditure data does not contain the specific unit code that was purchased (that information is stored in CAS), the unit costs represent an amalgamation of all the contractor units and dollars for that account. Hence, the unit cost on this report does provide much assistance is equating actual expenditures to contract rates.

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**XI. Material Units Section of Binder**

The "Material Units" section of the binder provides a listing of the work order material records where the material code is populated and the snapshots of the GTE Advance Material System (GTEAMS) which equates to the current contract rate of materials being purchased by GTE.

**A. Work Order Material Units**

The "Work Order Material Units" is a report that lists all the work order material records that have a material code. It displays the CLLI, Company, Plant, Work Order, Account, Material Code ("Matl Cd"), Category, Pair Size, Gauge, Year, Month, Units, and Dollars.

The CLLI code is the Common Language Location Identifier specified for the exchange. It matches one of the CLLI codes on the request.

The Company and Plant equate to CLLI code. Many of GTE's systems utilize a combination of company code and plant to identify an exchange. As a result all the work order face sheet and open work order detail reports under the Work Order binder tab will only display the company and plant.

The Work Order is an internally generated identifier created by CPMS/WOJS system when requested by a Planner or Engineer. The identifier is unique by company and plant. As a result, the same work order may appear to be utilized in different company and plants (i.e., CLLI codes). In reality, since the work order is unique by company and plant, the work order number identifier is the same, but it's not the same work order.

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The Material Code ("Matl Cd") is an internally generated identifier created to ensure that all the parts in GTE can be uniquely identified. Each unique combination of part number and original equipment manufacturer should result in the assignment of a new material code.

The Material Category is a high level identifier assigned based on the attributes of the material code. The material code is visible on the Open Work Order Detail report under the work order reports tab or in the "raw" material ("WO\_MINT.xls") file. If an expenditure could not be directly tied to a material code, it was not included in the

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expenditures used to develop the unit costs and the investment would not be included in the work order material summary.

The Pair Size and Gauge fields are assigned based on the attributes of the material code.

The Year and Month contain the month and year that the expenditure occurred.

The material units and dollars are derived from the work order through a combination of material code and cost element code (CEC). The material code and CEC are visible on the Open Work Order Detail report under the work order reports tab or in the "raw" material ("WO\_MINT.xls") files.

The Major Material Units and Dollar fields contain the units and expenditures associated with major material items. If the material code is populated and the CEC is "20A" or "201", the units and dollars will be summed to the Major Material Units and Dollar fields. The Unit Cost is a ratio between the Dollars and Units.

A simple average has been calculated to provide a feel for the material cost when the same material code appears on multiple work orders with different prices.

The unit cost on this report should be close to the contract rates contained in the GTEAMS Support tab. There are some mitigating factors that might cause the prices to not exactly match the contract rates. One factor is that the rates are not static but are adjusted as new rates are negotiated. A second factor is that the rates represent the current cost to GTE to purchase that material item. However, if the local supply point into which the material is to be stocked contains the same material item purchased at a different time (and hence rate), a weighted average of the rates of the all the "like" material items is developed. This system average unit price is rate at which the material will be issued and the rate that will appear on the work order expenditures.

**B. GTEAMS Support**

The "GTEAMS Support" tab contains snapshots of the GTE Advanced Material System (GTEAMS) Corporate Item Master screen. Among other things, the snapshot contains the material code, material description, the part number, the original equipment manufacturer, and the material contract price.

The GTEAMS Support tab contains two sets of GTEAMS snapshots. One snapshot is from 1/8/98 and the second snapshot is from 1/13/99. A review of the GTEAMS snapshots reveals that the price may vary significantly from one year to the next.

As stated in the Work Order Material Units tab, the contract rates contained in this GTEAMS Support tab should be close to the unit rates display on the material units report. There are some mitigating factors that might cause the prices to not exactly match the contract rates. One factor is that the rates are not static but are adjusted as new rates are negotiated. A second factor is that the rates represent the current cost to GTE to

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purchase that material item. However, if the local supply point into which the material is to be stocked contains the same material item purchased at a different time (and hence rate), a weighted average of the rates of the all the "like" material items is developed. This system average unit price is rate at which the material will be issued and the rate that will appear on the work order expenditures.

**XII. Work Order Reports Section of Binder**

The "Work Order Reports" section of the binder contains two standard reports from the Capital Program Management System (CPMS). One report is the Work Order Face Sheet. The work order face sheet displays the Company, Plant, and Work Order. It also displays the work order budgeted dollars, a narrative describing what the project intended to accomplish, and a listing of the scheduled and actual milestones.

The second report is the Open Work Order Detail report. This report displays the Plant and Work Order. It also displays all the actual expenditure against the work order broken out by account, cost element code (CEC), date, labor group/contractor/vendor, material code, units, and dollars. The unit and dollar data on this report should match the unit and dollar data in the work order material and labor summaries.

There is a work order face sheet and open work order detail report for each work order used to develop the structure and cable unit costs. The work orders have been organized by state.

These reports are utilized by GTE Operations personnel as part of their daily work efforts to track and monitor work orders.

**XIII. Data Interdependencies**

This section of the document will attempt to briefly describe how all the different pieces of the "Structure and Cable Costs Survey" development process fit together.

The work order face sheet and open work order detail reports described in Section XII of this document are standard reports from the CPMS/WOJS system. The "raw" data contained in the "WO\_LINT.xls" and "WO\_MINT.xls" files is an extract from the same CPMS/WOJS tables that are used to develop the open work order detail reports. As a result, the data that appears in the "raw" material and labor files should match the information contained in the Open Work Order Detail report.

The labor and material work order summary data contained in the "FCCLSUM.xls" and "FCCMSUM.xls" files is just a summarized version of the "raw" labor and material files based on certain criteria. As stated in section IX of this document ("Material and Labor Work Order Summary"), the material summary keys on records with a populated material code and the labor summary keys on records that can be identified as engineering, placing, or splicing. While other

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expenditures exist on both the material and labor files, it is not included and therefore not accounted for in the structure and cable unit cost. The total work order cost is displayed under the "Total Project Cost" column on the structure and cable cost reports.

With the summarized data being derived from the "raw" data file which, in turn, is derived from the same data source as the open work order detail reports, the labor work order summary dollars will match the open work order detail reports for engineering, placing, and splicing. In addition, the material work order summary dollars will match the open work order detail reports in cases where the expenditure record is associated with a material code.

Lastly, the underground structure unit costs ("FCC\_T1.xls"), the buried structure unit costs ("FCC\_T2.xls"), copper cable (50 pair/24 gauge) unit costs, and fiber cable (24 strand) unit costs are derived from the labor and material summary data. Therefore, the data contained in each of these unit cost reports will match the open work order detail report.

The intent at each point in the process is to demonstrate the linkage between the data utilized to develop the structure and unit costs and the actual expenditures appearing on the work orders.

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# FCC Structure and Cable Cost Survey

## Underground Structure Unit Cost

<u>CLL</u>	<u>Work Order</u>	<u>Total Project Cost</u>	<u>Matl &amp; Labor Cost</u>	<u>Cond Units</u>	<u>Cond Maj Matl Dol</u>	<u>Cond Min Matl Dol</u>	<u>Cond SH Dol</u>	<u>Mnhole Units</u>
BRAROKXB	3F001DF	244853.69	209913.84	340	227.41	256.93	15.75	0
BRAROKXB	3P001WS	50221.38	49901.93	700	417.20	166.01	90.23	0
BRAROKXB	3P001XX	50760.05	50592.64	120	72.60	28.89	15.72	0
BRAROKXB	3P001YR	44655.14	43990.72	200	133.77	53.23	28.95	0
BRAROKXB	3P002BM	179229.08	160253.71	1500	963.00	1256.41	97.11	0
CRTNTXXD	3F001CN	141844.32	133002.15	2280	1463.76	963.08	638.97	0
Total		711463.66	647654.99	5140.00	3277.74	2724.55	886.73	0.00

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# **FCC Structure and Cable Cost Survey** **Underground Structure Unit Cost**

<u>Mnhole Mai Matl Dol</u>	<u>Mnhole Min Matl Dol</u>	<u>Mnhole SH Dol</u>	<u>Engr Dol</u>	<u>Place Dol</u>	<u>Splice Dol</u>	<u>Und Structure Unit Cost</u>
0.00	0.00	0.00	578.20	0.00	0.00	3.17
0.00	0.00	0.00	617.25	1885.21	0.00	4.54
0.00	0.00	0.00	0.00	0.00	0.00	0.98
0.00	0.00	0.00	0.00	0.00	0.00	1.08
0.00	0.00	0.00	11665.65	339.65	0.00	9.55
0.00	0.00	0.00	507.20	70607.52	0.00	32.54
0.00	0.00	0.00	13368.30	72832.38	0.00	18.11

7/28/99

## FCC Structure and Cable Cost Survey Underground Structure

### Legend:

<b>CLLI</b>	The Common Language Location Identifier for the Exchange.
<b>Work Order</b>	Internally generated number used to track project units, expenditures, and milestones.
<b>Total Project Cost</b>	Total capital expenditures on the work order
<b>Matl &amp; Labor Cost</b>	Material and labor expenditures utilized in calculating the work order unit costs. The unit costs may include items not requested on the FCC Structure and Cable Cost Survey.
<b>Cond Units</b>	The quantity of conduit units placed in the 2422 (underground) or 2441 (conduit systems) accounts. The conduit unit is "per foot".
<b>Cond Maj Matl Dol</b>	The major material expenditures for the conduit.
<b>Cond Min Matl Dol</b>	The minor material expenditures for the conduit.
<b>Cond SH Dol</b>	The shipping and handling expenditures associated with the conduit.
<b>Manhole Units</b>	The quantity of manhole units placed in the 2422 (underground) or 2441 (conduit systems) accounts. The manhole unit is "each".
<b>Manhole Maj Matl Dol</b>	The major material expenditures for the manhole.
<b>Manhole Min Matl Dol</b>	The minor material expenditures for the manhole.
<b>Manhole SH Dol</b>	The shipping and handling expenditures associated with the manhole.
<b>Engr Dol</b>	The Engineering expenditures associated with the provisioning of the conduit and manhole.
<b>Place Dol</b>	The Placing expenditures associated with the placing of the conduit and manhole.
<b>Splice Dol</b>	The Splicing expenditures associated with the splicing of the conduit and manhole. There is no splicing associated with the placement of conduit or manholes.
<b>Und Structure Unit Cost</b>	<p>The Underground Structure Unit Cost is calculated by summing the Conduit material unit cost, Manhole material unit cost, and the labor unit cost. The formula is as follows:</p> $= ((\text{Cond Maj Matl Dol} + \text{Cond Min Matl Dol} + \text{Cond SH Dol}) / \text{Cond Units}) + ((\text{Manhole Maj Matl Dol} + \text{Manhole Min Matl Dol} + \text{Manhole SH Dol}) / \text{Manhole Units}) + ((\text{Engr Dol} + \text{Place Dol}) / (\text{Cond Units} + \text{Manhole Units}))$ <p>Calculating work order BRAROKXB and work order 3F001DF.</p> $= ((227.41 + 256.93 + 15.75) / 340) + ((0 + 0 + 0) / 0) + ((578.2 + 0) / (340 + 0))$ $= 3.17$

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# FCC Structure and Cable Cost Survey Buried Structure Unit Cost

CUJ	Work Order	Total Project Cost	Matl & Labor Cost	CU Units	CU Engr Dol	CU Place Dol	CU Splice Dol	FI Units	FI Engr Dol	FI Place Dol	FI Splice Dol	Cond Units
BORNTXXA	3P001EQ	3915.90	3807.86	594	511.97	511.53	0.00					
BRAROKXA	3P001XT	69471.18	69400.90	11617	3028.05	21753.83	0.00					
BRAROKXA	3P002AY	30066.88	25027.77	814	1339.90	19712.87	0.00					
BRAROKXA	3P002CF	4862.01	4406.90	1322	819.60	1474.42	0.00					
BRAROKXB	3F001DF	244653.69	209913.84	57	16944.20	7491.89	0.00					
BRAROKXB	3P001WY	11438.93	10460.57	2269	3064.41	3829.36	0.00					
BRAROKXB	3P001XU	9560.67	9539.77	2096	1028.46	3328.53	0.00					
BRAROKXB	3P001XX	50780.05	50592.64	8300	3013.28	13132.83	0.00					
BRAROKXB	3P001YS	16517.82	17128.24	1148	2709.55	11247.30	0.00					
BRAROKXB	3P002AD	17506.31	16506.52	4730	2113.97	8069.78	0.00					
BRAROKXB	3P002BJ	60993.30	54337.99	12003	2143.11	18221.05	0.00					
CRLBNMXA	3P001JG	43409.16	39009.05	9711	2322.42	4263.30	0.00					
CRWDFLXA	3P002DH	43485.70	41547.99	6685	12044.78	9963.54	0.00					
CRWDFLXA	3P002DS	40400.41	38430.13	6470	8836.11	10410.45	0.00					
CRWDFLXA	3P002DY	38712.46	34896.30	9948	5184.28	9259.57	0.00					
CRWDFLXA	3P002ES	24858.55	22578.71	3396	2857.97	6868.67	0.00					
CRWDFLXA	3P002GX	5702.38	5505.71	814	564.36	349.82	0.00					
CRWDFLXA	3P002HY	45686.10	44432.87	3200	1007.73	5178.69	0.00					
CRWDFLXA	3P002KF	3213.04	2953.76	360	1189.10	475.97	0.00					
CRWDFLXA	3P002KP	6686.35	5746.98	450	954.96	736.12	0.00					
CRWDFLXA	3P002KR	13783.84	12455.01	3385	4605.77	893.56	0.00					
CRWDFLXA	7P001AM	433006.79	398631.05	10432	3236.36	7589.65	0.00					
Total		1218593.29	1116310.56	99581.00	77500.34	166832.73	0.00	0.00	0.00	0.00	0.00	0.00

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# FCC Structure and Cable Cost Survey Buried Structure Unit Cost

<u>Cond. Maj. Mat'l DoI</u>	<u>Cond. Min. Mat'l DoI</u>	<u>Cond. SH DoI</u>	<u>Buried Structure Unit Cost</u>
			1.72
			2.13
			25.86
			1.74
			428.70
			3.04
			2.08
			1.95
			12.16
			2.15
			1.70
			0.88
			3.30
			2.67
			1.45
			3.48
			1.49
			1.93
			4.57
			3.76
			1.63
			1.04
0.00	0.00	0.00	2.45

# FCC Structure and Cable Cost Survey Buried Structure

Legend:

CLL	The Common Language Location Identifier for the Exchange.
Work Order	Internally generated number used to track project units, expenditures, and milestones.
Total Project Cost	Total capital expenditures on the work order
Matl & Labor Cost	Material and labor expenditures utilized in calculating the work order unit costs. The unit costs may include items not requested on the FCC Structure and Cable Cost Survey.
CU Units	The quantity of copper cable units placed in the "242310" (buried cable) account. The unit is "per foot".
CU Engr Dol	The Engineering expenditures associated with provisioning the buried copper cable.
CU Place Dol	The Placing expenditures associated with placing the buried copper cable.
CU Splice Dol	The Splicing expenditures associated with splicing the buried copper cable. No splicing expenditures were captured for buried cable structure. The splicing expenditures are accounted for in the buried copper cable costs.
FI Units	The quantity of fiber cable units placed in the "242320" (buried fiber) account. The unit is "per foot".
FI Engr Dol	The Engineering expenditures associated with provisioning the buried fiber.
FI Place Dol	The Placing expenditures associated with placing the buried fiber.
FI Splice Dol	The Splicing expenditures associated with splicing the buried cable. No splicing expenditures were captured for buried cable structure. The splicing expenditures are accounted for in the buried copper cable costs.
Engr Dol	The Engineering expenditures associated with the provisioning of the conduit and manhole.
Place Dol	The Placing expenditures associated with the placing of the conduit and manhole.
Splice Dol	The Splicing expenditures associated with the splicing of the conduit and manhole. There is no splicing associated with the placement of conduit or manholes.
Cond Units	The quantity of conduit units placed in the 2423 (buried) account. The conduit unit is "per foot".
Cond Maj Matl Dol	The major material expenditures for conduit in the 2423 account.
Cond Min Matl Dol	The minor material expenditures for conduit in the 2423 account.
Cond SH Dol	The shipping and handling expenditures associated with conduit in the 2423 account.
Buried Structure Unit Cost	<p>The Buried Structure Unit Cost is calculated by summing the Conduit material unit cost in the 2423 account and the cable and fiber labor unit cost. The formula is as follows:</p> $= ((\text{Cond Maj Matl Dol} + \text{Cond Min Matl Dol} + \text{Cond SH Dol}) / \text{Cond Units}) + ((\text{CU Engr Dol} + \text{CU Place Dol}) / (\text{CU Units})) + ((\text{FI Engr Dol} + \text{FI Place Dol}) / (\text{FI Units}))$ <p>Calculating work order BORNTXXA and work order 3P001EQ.</p> $= ((0 + 0 + 0) / 0) + ((511.97 + 511.53) / 594) + ((0 + 0) / 0)$ $= 1.72$